



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,289	01/23/2004	Kenneth L. Gage	020478	6484

23696 7590 10/11/2007  
QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
----------

HUYNH, NAM TRUNG

ART UNIT	PAPER NUMBER
----------	--------------

2617

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

10/11/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kascanla@qualcomm.com  
nanm@qualcomm.com

# Office Action Summary

Application No.

10/763,289

Applicant(s)

GAGE, KENNETH L.

Examiner

Nam Huynh

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 1/3/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-15 and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al. (US 6,879,600) (hereinafter Jones).

Regarding claims 1, 3, 5, and 10, Jones discloses a method and system for intersystem wireless communication session arbitration (title). In the scope of the invention, a mobile station may communicate in either a first access system according to a first protocol mode or a second access system according to a second protocol mode (plurality of wireless protocol links) (column 11, lines 16-25). To select which mode to use the mobile employs one or more rules or policies referred to as arbitration policies (predetermined criteria) that allocate the mobile's resources to the selected mode (selecting a first protocol link from the plurality of available wireless protocol links based on a predetermined criteria) (column 11, lines 58-66). Jones teaches that as a mobile station engages in a first-voice session using its first protocol mode of the first access system (establishing a first network connection through the first protocol link) and roams into, or enters into or otherwise begins operating into a location in which it

Art Unit: 2617

can communicate according to the first and/or second protocol mode, the mobile station may arbitrate between communicating between the first protocol mode or second protocol mode (column 12, lines 31-43) based on arbitration policies that include the relative signal strength of the first access system as compared to the second access system (detecting a change in status of the predetermined criteria of the first protocol link) (column 12, lines 6-21). If this arbitration policy were to be followed, the mobile station would be handed off by a common gateway (destination host) that facilitates hand-offs (column 9, lines 27-30) from the first protocol mode of the first access system to the second protocol mode of the second access system (selecting and establishing a second protocol link of a second network based on the change in status of the predetermined criteria such that the wireless device does not lose network communication with the destination host) (column 12, lines 44-56).

Regarding claims 2 and 4, Jones teaches that the arbitration policy may comprise quality of service attributes or lowest relative cost (column 12, lines 6-21).

Regarding claim 6, Jones discloses that the first access system comprises a base station (figure 4, item 422).

Regarding claims 7-9 and 12-15, Jones teaches that the mobile station communicates with the first access system according to a first protocol. Therefore it is inherent to a skilled artisan that in order for the mobile station to communicate with a network, addresses must be assigned in order to identify the communication links established.

Regarding claim 11, Jones teaches that the arbitration module receives a CDMA and a WLAN signal strength scale factor (liveness) check (column 25, lines 11-21). If the user is roaming into a WLAN logging on may be required (column 21, lines 25-27) therefore making the transition transparent to the user.

Regarding claim 27, Jones teaches that the wireless device comprises a first and second transceiver (column 13, lines 1-5) and a CODEC module that demodulates and encodes (digital signal processor) (column 13, lines 20-29). The arbitration module renders the "connection logic" as described in regards to claim 1.

Regarding claims 28 and 29, Jones teaches the mobile station ascertains and compares one more preferred network metrics (data comprising parameters related to the first/second protocol links) to one or more predefined thresholds (column 22, lines 62-67). Therefore it is inherent that the mobile must store the metrics before a comparison may be made.

Regarding claim 30, Jones shows a connection, or network interface, between a gateway (network communication control center) and two wireless networks (figure 1). Jones teaches that the gateway translates and routes data according to the appropriate protocol (column 9, lines 1-10).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 16-21, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (US 6,879,600) (hereinafter Jones) in view of Dorenbosch et al. (US 2004/0028009) (hereinafter Dorenbosch).

Regarding claims 16-18, 31, and 32, Jones discloses the limitations set forth in claims 1 and 30, but does not explicitly disclose generating a mapping table for mapping the wireless device to the first protocol, updating the mapping table to map the wireless device to the second protocol, and using a network address translation (NAT) table to route data to/from the wireless device from/to a network site. Dorenbosch discloses a method and apparatus for effecting a seamless handoff between IP connections (title). In the scope of the invention, a gateway provides Network Access Translation of an IP address between a cellular and WLAN network (pages 3, 4, paragraphs 26-28). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gateway of Jones to include Network Access Translation, as taught by Dorenbosch, in order to substitute address values for application specific data and provide handoff from one IP connection to another.

Regarding claim 19, the limitations are rejected as applied to claims 1 and 16.

Regarding claim 20, Jones teaches that the first and second access system may be a cellular or WLAN (plurality of service providers) (column 16, lines 29-64).

Regarding claim 21, Jones teaches that an arbitration module with the mobile station may detect performance characteristics (health) of available networks(s) (column 22, lines 25-38).

6. Claims 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. (US 6,879,600) (hereinafter Jones) in view of Dorenbosch et al. (US 2004/0028009) (hereinafter Dorenbosch) as applied to claim 21 above, and further in view of Moon et al. (US 6,804,532) (hereinafter Moon).

Regarding claims 22, 24, 25, the combination of Jones and Dorenbosch discloses the limitations set forth in claim 21, but does not explicitly disclose that the mobile station comprises mobile connection logic for generating a prioritized wireless protocol links with signal strengths above a predetermined level. Moon discloses a system and method for re-routing communications based on link quality (abstract). In the scope of the invention, a mobile station includes a router that determines all potential links or paths available for communication (generating a list of wireless protocol links) (column 11, lines 10-17). The router may select a communication path based on metrics that may be given any suitable weight (priority) (column 12, lines 23-34). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Jones and Dorenbosch, to allow the wireless device to include a router, as taught by Moon, in order for the wireless

Art Unit: 2617

device to communicate with other networks and stand-alone devices by handoff with different types of cellular networks or technologies.

Regarding claim 23, Moon teaches that the metric may be a link quality that may be a received signal strength indication (column 10, lines 8-19).

Regarding claim 26, Dorenbosch teaches that streams are encapsulated with IP address associated with the mobile station (page 4, paragraphs 27, 28).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fors et al. (US 2004/0146021)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nam Huynh whose telephone number is 571-272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NTH  
9/28/07

  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER